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ABSTRACT

Since large segments of the population receive information about what is happening in society only by word-of-mouth, it is important to know if completeness of the news story individuals retain is in some way dependent on the medium that first released the news. To examine this question a study utilized a strategy developed for the experimental study of rumor. Two parallel versions of a 300-word news story were designed; one was presented to initial subjects in newspaper format, the other as a television news story. Subjects, 84 randomly selected freshman and sophomore students in a private southeastern university who were enrolled in courses in communication, psychology, and sociology, passed the story along orally to others and they in turn reported it to still others. Assessments were made as to the completeness of the accounts at each step in the chains of serial retelling for each condition. Results revealed that the loss of information among chains where initial exposure was to a newspaper account was significantly less than loss in the television condition. Results also showed that the amount of information retained in either condition, however, did not follow a linear pattern and after an initial drop, the amount of information passed on by the subjects leveled off as the story traveled through the chains. (One figure, one table of data, and 19 notes are included.) (MS)

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DIFFERENTIAL RECALL IN THE DIFFUSION OF THE NEWS FROM A TELEVISION VS A NEWSPAPER SOURCE

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ABSTRACT

Millions of Americans do not attend directly to news from either newspaper or broadcast sources. Many receive such information only through a process interpersonal diffusion. Some, who are directly exposed, pass the information on to others. They, in turn, pass it on still farther. Such chains of tellers and retellers can have many steps. The present experiment focuses on the following question: When a population learns news through interpersonal channels, is the completeness of the information passed along dependent on the medium from which those directly exposed learn the story? To study this question, a strategy was used that was developed initially by Allport and Postman for the experimental study of rumor. Two parallel versions of a 300-word news story were designed. One was presented to the initial subjects in newspaper format; the other as a television news story. The initial subjects passed it along orally to others and they in turn reported it to still others. Careful assessments were made as to the completeness of the accounts at each step in the chains of serial retelling for each condition. The results of an ANOVA test reveal that the loss of information among chains where initial exposure was to a newspaper account was significantly less than in the television condition. The amount of information retained in either condition, however, did not follow a linear pattern. After an initial drop, the amount of information passed on by the subjects leveled off as the story traveled through the chains.

ABSTRACT

In word-of-mouth diffusion does the completeness of a news story passed on depend on the medium from which it was initially released? The answer seems to be yes. Two parallel stories (in newspaper vs television format) were passed on in a serial retelling experiment. In both conditions, the story lost details rapidly in early positions in the chains but quickly leveled off. Significantly more information was retained in the newspaper than in the television condition.

DIFFERENTIAL RECALL IN THE DIFFUSION OF THE NEWS: FROM A TELEVISION VS A NEWSPAPER SOURCE

A substantial literature has accumulated during the last several decades showing that important (and sometimes unimportant) news stories are passed on to secondary audiences by a process of "diffusion." Such stories are transmitted by those who originally learn them from the mass media to others with whom they are in social contact. Such information sometimes travels through several steps of person-to-person transmission as it spreads deeper into the population. Stories of great interest with high news value spread quickly to many people. Others, lower in those characteristics, are diffused more slowly and to smaller final audiences.

While it has been widely established that such person-to-person diffusion of the news occurs, an important research question concerning the process seldom has been directly addressed. Can one medium be more effective than others as a news source? More specifically, when a population learns news through interpersonal channels, is the completeness of the news story those individuals retain in some way dependent on the medium that first released the news? It is precisely to that question that the present research is addressed.

IMPORTANCE OF THE PROBLEM

The diffusion of the news to secondary audiences is an important research topic for several reasons. First, word-of-mouth may be the only means by which large segments of the population receive information about what is happening in society. Millions of people in the

United States do not read newspapers, listen to radio news, or even watch newscasts on television. Thus, for many significant news stories the sole information channel to these audiences is through interpersonal means.

Another reason why word-of-mouth diffusion of the news is an important research issue has far-reaching implications. In the event of a disaster --- such as a flood, a major earthquake, a catastrophic hurricane, or even a nuclear attack, large numbers of citizens will be evacuated from, or will flee, devastated areas. Such populations might be difficult to reach directly by customary media. Only a few individuals might have access to broadcast or print media --- assuming any medium could continue after a disaster. In such a situation, word-of-mouth communication would have to supplement mass media contact for widely dispersed people who would need to learn where to obtain food, shelter, and medical attention. Unfortunately, we know little about how effective such interpersonal transmission might be.

PRIOR RESEARCH

Four research traditions offer possible insights into the problem of the comparative effectiveness of different media. The first is the study of the diffusion of the news. The research in that literature is directly relevant, but not completely identical to, the present study. A less relevant tradition is the diffusion of cultural traits, either between societies or within societies. A third possibility is the study of rumor transmission. Although rumors have only a marginal relationship to news, it is from this tradition that the research strategy of the present study is drawn. Finally, the

study of comparative recall from print vs. other media --- aside from considerations of word-of-mouth diffusion --- is a source of possible hypotheses.

Diffusion of the News

De Fleur recently reviewed all empirical studies of the diffusion of the news that had been published in refereed journals in the U. S. between 1945 and 1985.[1] Virtually all of the early research (1945 - 1965) was done by social scientists, rather than by communication scholars. However, social scientists completely withdrew by 1964, and during the second half of the period (1965 - 1985) all of the published investigations were completed by communication researchers.

After rising to a peak in the 1960s, the number of such studies declined with the passing years.[2] No reports of such research published in either 1986 or 1987 were located by the present authors. It is not difficult to understand why this research tradition suffered: Mass communication scholars tend to focus not on the entire process by which news reaches people, but on: (1) the media that first gather, edit, and disseminate it, or (2) the characteristics of audiences who attend directly to the media, and (3) the influence the information has on audiences' beliefs and behavior. It is not customary to be concerned with the entire de facto body of receivers who ultimately hear some oral version of the stories that the media release. Thus, we know a great deal about surveillance, gatekeeping, agenda-setting, audience demographics, opinion change, consumer purchases, and voting but far less about the behavior of those segments of the population who receive the news by word-of-mouth.

The Diffusion of Innovation

While there is a huge literature on the diffusion of innovation, it is not actually of much help in understanding the diffusion of the news. First, two somewhat distinct processes have been researched. The first is the diffusion of cultural traits between societies --- a phenomenon that has been widely studied in anthropology. While there are hundreds of studies tracing the social itinerary of some specific word, tool, ritual, or belief, from one society to the next, those descriptions do not show the exact activities, such as contact, communication, and exchange by which individuals adopt items from another people.

The diffusion of innovation within societies has also been thoroughly investigated, particularly by sociologists. Over the last forty years or so, nearly 4,000 studies have been published revealing a consistent pattern followed when a population adopts some newly invented or borrowed artifact or practice. Rogers and Shoemaker call it the innovation paradigm.[3] The formulation describes the various stages in the adoption process and to some extent the proportion of the population who may adopt a given innovation.

Unfortunately, the diffusion of innovation paradigm and its associated literature is of little help in understanding the word-of-mouth diffusion of the news. The adoption of a new cultural or technological innovation usually requires a rational assessment of its costs vs its benefits, its compatibility with existing items or practices, and so on. The costs of adoption may be considerable and the consequences substantial. Learning a new bit of news, on the other hand, requires no such complex considerations. One seldom needs to

contemplate the cost/benefit ratio to decide whether one wants to be informed. Thus, the diffusion of cultural artifacts between societies, the diffusion of newly adopted innovations, and the diffusion of the news by word-of-mouth, share little except the word "diffusion."

The Study of Rumor

Closer to the problem of retention or loss of information as a news story moves through a population by word-of-mouth is what happens during the spread of a rumor. During the past half century, an impressive amount of research has been conducted on the nature of rumors and the conditions under which they spread. That research has been conducted with the use of two basic strategies that often show very different conclusions. The first is the study of naturally generated rumors which flow through various kinds of populations. The second strategy makes use of laboratory-like experiments based on serial retelling of a complex initial story.

Actual rumors have to be studied within the social context where they occur, and in an after-the-fact manner. This can be difficult. But with the use of field research techniques, rumors have been successfully traced to find out how quickly they were spread, among whom, and with what level of accuracy.[4] Generally speaking, rumors that spread naturally through social systems --- such as communities, schools, and military units show a compounding pattern. While the central details often survive as they are told and retold, the overall configuration of information often changes by growing more elaborate. Sometimes a bewildering array of interpretive and speculative propositions are added to the basic story as the rumor moves along.[5]

The laboratory-like approach is quite different. It uses recruited subjects, and an experimenter controls the initial message content. Typically, to study serial retelling, one subject is selected as a starter. A story, drawing, or other information is viewed by the starter and after such materials are removed, the starter subject then tells the information to a second person. After the starter leaves, that individual tells a third person, and so on, through a number of individuals in a word-of-mouth chain. The message that is passed on at each stage is carefully recorded for later analysis.

Three distinctive patterns of change almost always take place in the "rumor" under these conditions. These are embodied in the concepts of leveling, sharpening, and assimilation, which together make up the "embedding" process.[6] Leveling refers to the fact that the message grows shorter and more concise. Details are lost and fewer words are used in successive versions. (It is with exactly such a loss of completeness that the present research on news transmission is concerned.) Sharpening is a qualitative change in which prominent details remain in the story, becoming the dominant theme. Assimilation can be roughly equated to distortion, but it refers to the incorporation of ideas, stereotypes, or other modifications that result from attitudes and cultural expectations of the subjects.

The initial research project describing the embedding pattern was conducted in the 1940s by Allport and Postman who made an extensive study of both natural rumors and laboratory serial retelling.[7] Numerous replications of their procedures have confirmed the existence of the three-part embedding pattern using many different types of experimental messages.

Learning from Different Media

The present research compares the serial retelling of two versions of the same news story. Investigations of differential recall from television, radio, film, and newspapers have demonstrated that subjects indeed differ in amounts of information that they can remember when it is presented by the different media.[8] However, controversy has surrounded this issue for years, spurred by the somewhat contradictory findings of different researchers.

For example, Wilson[9] and Browne[10] found print to be superior to television in terms of message retention. However, Williams, Paul, and Ogilvie[11] as well as Katz[12] reported just the opposite --- that the broadcast media are superior to print in learning situations. Stauffer, Frost, and Rybolt[13], along with Dommermuth[14] found no significant difference in information retention between broadcast and print media. Part of the uncertainty arises because the differing findings of these investigators were reached with the use of unlike subjects, unlike experimental materials, and unlike methods.

It was not clear to the present experimenters, then, what to expect in terms of the most effective medium for information recall. This made it impossible to derive a predicting hypothesis for the present study from this body of research findings. Perhaps equally as unsettling as the differing findings, is that the literature revealed <u>agreement</u> on how little audiences remember from news stories: Individuals appear to recall relatively little of what they see, hear, or read from <u>any</u> of the news media. For example, Wilson found subjects retained an average of only 20 percent of a television news story. Other subjects who read a parallel account retained about 25

per cent --- scarcely an impressive difference.[15] In another study, Neuman discovered that half of his subjects could not recall even one story from a television newscast when questioned later that evening.[16] Furthermore, such findings are not confined to American audiences. A study of Finnish television viewers revealed that 48 per cent of viewers remembered nothing from the evenings's television news.[17] Similarly, when Katz surveyed television and radio listeners in Israel, only an hour after the broadcast had ended, 34 per cent of the radio listeners and 21 per cent of the television viewers could not recall a single story.[18] Little wonder that public opinion researchers began reporting long ago that they often encountered "chronic know-nothings." An important question is why in our media-saturated society does this situation persist?

From the sources above, about the only logical hypothesis that could be inferred was the uncomfortably vague anticipation that if identically worded news stories, one from print and one from television, are then passed from person-to-person in chains of serial retelling, there may or may not be a difference in how much information will be passed on --- indeed if anything is passed on at all! However, from the accumulated body of evidence on rumor research, it still seemed likely that, in a serial retelling experiment, news stories will undergo some form of leveling, and perhaps some version of the entire embedding pattern.

METHOD

To test the leveling hypothesis, an experiment was designed, based on Allport and Postman's serial retelling studies of rumor.

First, a fictitious, but plausible, news story was prepared in both print and televised form. Both accounts paralleled each other in number of words (approximately 300), sequential structure, number of details, and exact quotations. That is, their content was virtually identical.

The selection of the story was based on three criteria: First, it had to be fictitious in order to guard against pre-existing knowledge of the information by any of the subjects. Second, the story had to be believable. Otherwise, the subjects' lack of belief might prove detrimental to the outcome of the experiment. Finally, both the broadcast and print versions had to parallel the format, and style of professional news stories. The television account was on video tape and approximately one minute in length. The newspaper version was eight column inches long. It was produced on a laser printer to look like a newspaper clipping and was presented to subjects in that form.

Both versions of the story were produced by journalists with considerable experience in the relevant media. The story concerned a drug-related automobile accident in which the mother and father of two teen-agers were killed. Various facts about the circumstances, the drivers, the victims, a witness and the police investigation were mentioned. An anchorman with eight years of on-camera experience, but unknown to the subjects, appeared in the (taped) TV account. Neither version of the story mentioned the name of a television station or a newspaper. There was no indication that the subjects believed them to be other than genuine news stories. (Their true nature was disclosed later in subject debriefing.)

As has been the case in virtually all of the prior rumor studies based on serial retelling, a student sample was used in the present experiment. It consisted of freshmen and sophomores in a private southeastern university who were enrolled in courses in communication, psychology, and sociology, and who had signed up in a voluntary subject pool. The wisdom of using this type of subject is, of course, a matter of judgment. In any study the choice of subjects depends on the goals of the research. For the purposes of the present experiment, the subjects used were judged to be appropriate for several reasons. For one thing, the present investigation is a preliminary exploration of the applicability of the Allport Postman embedding concepts to the experimental study of the diffusion of the news (rather than a definitive test of a theory or a search for parameters that apply to the general population). For this research goal, subjects of this type were readily available and cooperative. A second factor is that university students are undoubtedly more intelligent on average than a panel drawn from the less educated general population. And, because of the conditions under which the subject pool was operated --- participation earned minor credit --- motivation was probably enhanced. What these two factors imply is that the data obtained were probably more complete than would have been derived from less educated and motivated subjects. At a later point, if both the present research and additional "base-line" studies now being designed show that this line of investigation is worth pursuing more extensively, samples more representative of the population at large may be used.

With these considerations in mind, then, eighty four subjects,

divided equally between males and females, were obtained from the pool and assigned randomly to the various conditions of the experiment. This permitted the construction of 7 separate chains of 6 subjects each to pass on the newspaper story, and an additional seven chains of comparable size to retell the television version.

After the first person in a given chain read or viewed one of the accounts, the details of the story were passed on by word-of-mouth through the remaining five tellers and retellers. At each step, the person hearing the story was instructed to listen carefully and pass on as full an account as possible to the next person. Only the starters had access to the original story. At each point, the verbal account was recorded for later analysis.

The dependent variable was the amount of information that was passed on. This was carefully quantified for each retelling. The purpose of these assessments was to reveal whether or not a leveling pattern was present in the results. For other purposes, attention was given to patterns of sharpening and assimilation, the other two ways in which rumors become distorted according to Allport and Postman. The present research, however, concentrates on the leveling pattern.

RESULTS

The experiment raises the question as to whether or not a news story passed along by interpersonal means undergoes a leveling pattern. In addition, it raises the question as to whether this pattern is different when print vs television is used as the starting source. To answer these questions, three steps were

necessary: First, for each of the media, the pattern and amount of information lost at each step in the chain had to be determined. This assessment had to be made for each of the seven replications, and the results were combined for each position in the chains. Second, a plot had to developed to show the pattern and amount of information loss at each stage for each of the media. An additional plot had to be made to compare the two. Third, a statistical analysis of the difference --- if any --- in the amount of loss had to be made to decide whether it was due to the independent variables and conditions of the experiment, or simply due to chance.

The Amount of Information Passed On

To obtain the quantitative data for these plots the number of words passed on by each subject at each position in the chains was carefully counted. The table included in Figure 1 shows the mean number of words in the verbal accounts for both the television and newspaper conditions (averaged for each stage in the chains).[19] Clear patterns of leveling are in evidence for each of the experimental conditions. That is, the amount of information passed on by successive subjects declined at each stage in the serial retelling. The major loss occurred in the first three positions in the chain, which is consistent with the "leveling" pattern.

Insert Figure 1 about here.

The second question was whether one medium or the other would have the advantage as a source of initial information in such serial transmission. A preliminary answer to that question can be obtained

by examining the graphic portion of Figure 1, where the results of the two separate conditions of the experiment are plotted together. From inspection of the graph, it appears that a leveling pattern occurred for each of the media. However, the two plots are by no means the same. The television story eroded very quickly and then leveled off. The newspaper version also leveled, but it did so in a different pattern, with greater retention until the last stages.

Statistical Comparisons

To assess the implications of these data, a quantitative comparison is needed. Numerically, the table in Figure 1 shows what happened at each stage. Averaged over all six positions in the chains, the mean number of words used to retell the television version of the story was 80, while the mean number for the newspaper account was 105.

But the raw figures do not tell the whole story. An interaction effect exists between a particular position in the chain, and the type of medium from which the information was originally started. This is most visible in chain positions one through four. For whatever reason, subjects in chains where the starter learned the information from a newspaper retained and passed on more complete information than their television counterparts.

An ANOVA was performed to assess the statistical significance of the differences in means and the interaction revealed in Figure 1. The relevant cells were media (newspaper vs television) and position (in the chain of six persons). With 84 subjects this provided for 83 degrees of freedom. The sums of squares were partitioned between the effects of medium, position, the two-way interaction between the two,

and the residual. Table 1 shows the results.

Insert Table 1 about here.

The F-values are all statistically significant --- indeed, those for position and medium each have associated probabilities considerably less than .001 and are very unlikely to have occurred by chance. This is to be expected from the plots shown in Figure 3, indicating very clear differences in relative completeness of retained information --- especially between early positions in the chains --- and the rather clear advantage of the printed story over the television version.

The outcome that is less easy to understand is the two-way interaction between position in the chain and the source medium. With a probability of only .024, it is unlikely to be due to chance. This interaction indicates that subjects in the first four positions in the newspaper chains recalled and retold considerably more complete information than their counterparts in the television chains. It is not difficult to understand the advantage of print for the starters, or possibly even for the subjects in the second positions in the chains. But why this advantage of print persisted as far as the first four positions is not clear.

Generally, then, the results show that for both media the news story quickly grew less complete as it moved from one person to the next in the serial retelling. This happened in spite of the instructions to the subjects that should have minimized such information loss. Each was told to listen carefully and to try to

remember and pass on as many details as possible.

The second aspect of the results is that for both media the pattern of information loss was not linear. There was an initial drop in information retention, followed by successively smaller reductions as the message travels through the chains. For the newspaper presentation that initial drop was about a third; for television it was more than half. Finally, there was a clear overall difference in completeness between the newspaper version of the story and the television version, despite length and content controls. This appears to have occurred because of an interaction effect between position in the chain and the original source of the story, with the newspaper account the more efficient medium for spreading the news.

DISCUSSION

The present research is grounded on the assumption that in some respects American society retains an oral tradition in the flow of news. Large numbers of people do not read the newspapers or receive the news from broadcast media. Even if they do, there is some question as to how much they remember. There is an obvious need to explore formats that have an advantage in raising that level of recall. The Allport Postman serial transmission experiment, borrowed from experimental studies of rumor, appeared to be worth preliminary investigation to see if it can serve as a vehicle or strategy for research that uses a variety of factors as independent conditions. The present study is the first of these explorations. Its results suggest that the serial transmission experiment can be used to show the influence of various factors (such as original source of

information) on the completeness with which news stories will be orally transmitted. The present experiment focuses on the quantity of that information.

Aside from the theoretical potential of such research, the diffusion process is a topic of very practical concern. Would such interpersonal channels be effective in transmitting information to people in a disaster situation? It is possible that they might. The study of the diffusion of the news over the last forty years has shown that stories of high news value with deep interest to virtually every citizen --- such as the death of a president --- spread very quickly by interpersonal means. This suggests, but by no means proves, that critical information in a disaster situation, related to personal and family survival, might also spread quickly. However, serious questions remain about the quality of that information. The present study addresses only a part of that problem, probing the sheer amount of information that is passed along from one person to another. Because it is a laboratory study using student subjects, rather than one conducted in a real community on a representative panel of citizens, its conclusions must be regarded as tentative. Nevertheless, its findings are sufficiently clear that the issues it raises appear to be worthy of further investigation. What the present study strongly suggests is that a newspaper (or print) version of a story can be passed on with less information loss than one started by television. What the study does not show is <u>why</u>.

Answers to that question may lie in bodies of research from other disciplines, such as psychology or education, that probe the relative advantages of print vs other media as vehicles for

instruction. Or, they may lie in a different approach to the comparative study of media for their diffusion value. It is entirely possible that there are features of the typical televised news story that actually inhibit retention of content. For example, as an alternative to the "talking head" format, video often accompanies a news story (with voice over, or with the reporter standing in front of the scene). While the video is supposed to make the story more interesting for the viewer, and thereby retain attention, it is possible that such scenes may actually distract viewers from the verbal account. That is not a problem with print; the reader's complete concentration is on the content, and attention is held by the reading effort.

Such questions cannot be answered in the present preliminary study, but they show directions in which this type of research appears to point. Comparisons need to be made with the same story in four different formats: print, radio, reporter only, and reporter plus background scenes. In any case, although it is clearly exploratory in nature, the present research strongly suggests that there may be differential recall from a television vs a newspaper source. If confirmed, that is a significant finding. An important next step will be to try to determine why.

NOTES

1. Melvin L. DeFleur, "The Growth and Decline of Research on the Diffusion of the News," Communication Research, 14: 109-130 (February, 1987).

2. ibid.

3. Everett M. Rogers and F. Floyd Shoemaker, Diffusion of Innovations: A Cross-Cultural Approach, Second Edition, (New York: Free Press, 1971) pp. 101-104.

4. Leon Festinger, Dorwin Cartwright, Katheleen Barber, Juliet Fleischl, Josephine Gottsdanker, Annet Keysen, and Gloria Leavitt, "A Study of Rumor: Its Origin and Spread," Human Relations, 1:464-486 (1948). Stanley Schachter and Harvey Burdick, "A Field Experiment on Rumor Transmission and Distortion," Journal of Abnormal and Social Psychology, 50:363-371. Melvin L. DeFleur, "Mass Communication and the Study of Rumor," Sociological Inquiry, 32:51-70 (Winter 1962).

5. Warren Peterson and Noel P. Gist, "Rumor and Public Opinion," American Journal of Sociology, 57:159-167 (1951); Schachter and Burdick, Ibid; De Fleur, Ibid.

6. Gordon W. Allport and Leo Postman, The Psychology of Rumor (New York: Henry Holt and Co., 1947).

7. ibid.

8. For example, see D.C. Williams, J. Paul, and J.C. Ogilvie, "Mass Media Learning, and Retention," Canadian Journal of Psychology, 11:157-163 (1957). William P. Dommermuth, "How Does the Medium Affect the Message," Journalism Quarterly, 51:441-447. C. Edward Wilson, "The Effect of Medium on Loss of Information," Journalism Quarterly, 51:111-115 (1974). Elihu Katz, Hanna Adoni, and Pnina Parness, "Remembering the News: What the Picture Adds to Recall," Journalism Quarterly, 54:231-239 (Summer 1977). Karen Browne, "Comparison of Factual Recall from Film and Print Stimuli," Journalism Quarterly, 55:350-353 (1978). John Stauffer, Richard Frost, and William Rybolt, "Recall and Learning from Broadcast News: Is Print Better?" Journal of Broadcasting, 25:253-262 (Summer 1981).

9. C. Edward Wilson, op. cit. p. 114

10. Karen Browne, op. cit. p. 353.

11. D.C. Williams, J. Paul, and J.C. Ogilvie, op. cit. p. 160.

12. Elihu Katz, Hanna Adoni, and Pnina Parness, op. cit. p. 239.

13. John Stauffer, Richard Frost, and William Rybolt, op. cit. p. 260-261.

14. William P. Dommermuth, op. cit. 446.

15. C. Edward Wilson, op. cit. p. 114-115.

16. W. Russell Neuman, "Patterns of Recall Among Television News Viewers," Public Opinion Quarterly, 40:121 (Spring 1976).

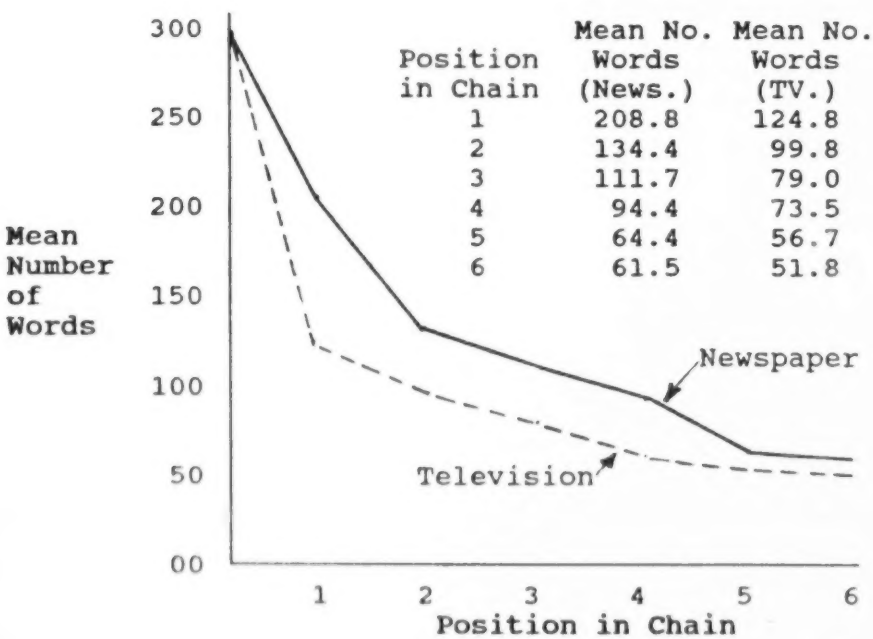
17. Kaarle Nordenstreng. "Policy for News Transmission," in Denis McQuail, ed. Sociology of Mass Communication, (Middlesex, England: Penguin Books, 1972), p. 390.

18. Elihu Katz, Hanna Adoni and Pnina Parness, op. cit. p. 233.

19. The present study uses the number of words passed on, as opposed to the number of "details" or "facts". While for some purposes the latter might be preferable, accurately measuring details in an account is a far more complex procedure than on might suspect. This is the case for two reasons: First, such measurement is fraught with problems of validity and reliability. Second, very difficult problems arise because of the existence of "surface" and "deep" meanings. Thus, it is sometimes impossible to tell if a given term or phrase is one that was in the original story. While the detail count was the strategy originally used by Allport and Postman, unfortunately they provided no information as to how it was accomplished or how the above problems were handled. Nevertheless, systematic procedures for detail counts are under development and will be tried (in addition to word counts) in subsequent research.

Figure 1

MEAN NUMBER OF WORDS IN VERBAL ACCOUNTS FOR THE NEWSPAPER VS TELEVISION VERSIONS OF THE STORY FOR EACH POSITION IN THE CHAINS*



Position in Chain	Mean No. Words (News.)	Mean No. Words (TV.)
1	208.8	124.8
2	134.4	99.8
3	111.7	79.0
4	94.4	73.5
5	64.4	56.7
6	61.5	51.8

*The original stories contained 300 words.

Table 1

ANALYSIS OF VARIANCE

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	P-VALUE
Main Effects					
Positions	116860.91	5	23372.18	23.01	>.001
Media	21153.44	1	21153.44	20.82	>.001
2-Way Interaction					
Pos.x Media	14039.20	5	2807.84	2.76	>.03
Explained	152053.55	11	13823.05	13.61	>.001
Residual	73123.96	72	1015.61		
Total	255177.51	83	2712.98		